

## **Rocky Flats Citizens Advisory Board Recommendation 97-11**

**to the U.S. Department of Energy**

### **Regarding Transportation of Radioactive Waste Through Colorado**

**Approved September 4, 1997**

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The Department of Energy (DOE) has proposed transportation of radioactive wastes through Colorado from the Rocky Flats Environmental Technology Site and other DOE facilities outside Colorado to the Waste Isolation Pilot Plant (WIPP) near Carlsbad, New Mexico. Transportation of these wastes inherently poses risks of exposure to radiation and contamination by radioactive materials to communities along the transportation routes. If wastes are to be transported through the state, it is imperative that the associated risks be minimized by utilizing the safest possible methods of handling and transportation.

#### **Background**

DOE has announced that they plan to ship "contact-handled" radioactive waste from Rocky Flats and the Idaho National Engineering Laboratory (INEL) to WIPP in May 1998. DOE expects to transport "remote-handled" wastes at a later date. More than 28,000 waste shipments are expected to be trucked through Colorado over the next 30 years.

The Western Governors Association (WGA) has developed the WIPP Transportation Safety Program Implementation Guide which, if fully implemented, will provide the majority of the safety recommendations necessary to minimize the risks associated with the transportation of radioactive wastes to WIPP. The Guide provides plans for satellite monitoring of trucks, commercial trucking company requirements, minimum truck and driver requirements, emergency responder training, hospital readiness, and other safety details.

DOE expects that WIPP will be open from 35 to 210 years. About 75% of the waste shipments will pass through Colorado. DOE estimates that, nationwide, over the life of the project, there will be two accidents per 1,000 shipments; six fatalities and 48 injuries (none from radiation); and three deaths from routine radiation releases from the shipping containers.

#### **Recommendations**

**ADMIN RECORD**

The Rocky Flats Citizens Advisory Board (RFCAB) is primarily concerned with the safety of transporting wastes to WIPP. RFCAB recommends that the following steps be taken by DOE to decrease the risks inherent in the transportation of wastes. Although these recommendations are from a Colorado perspective, we believe that they are appropriate for other states as well. In some cases DOE has already stated their intention to implement plans that are the same or similar to RFCAB recommendations. We have included these recommendations either to emphasize that we believe these DOE plans are important and should not be changed, or, because we were unable to positively determine what DOE plans were on the issue.

**Truck Parking Areas** - The current designated stopping areas in Colorado for shipments - Rocky Flats, Fort Carson Army Reservation, and the Pueblo Army Depot - are too far apart to function as the only emergency parking areas for the waste shipments. RFCAB recommends that DOE, in cooperation with the State of Colorado and in accordance with the WGA Safe Parking Evaluation Criteria, designate other safe and secure emergency parking areas for the shipments. These areas should be close enough together and strategically positioned so that trucks needing to make emergency stops have a high likelihood of being close to a designated parking area when it is needed. In order to minimize the costs associated with having adequate emergency parking, DOE should consider the possibility of securing the potential to use such parking areas without having to purchase property (e.g., areas leased on a per use basis). Unsecured and publicly accessible areas such as roadside rest areas and police station parking areas should not be used.

**Emergency Medical Personnel and Facilities** - RFCAB recommends that adequate emergency medical facilities, medical personnel, and first responders in counties along the transportation route have:

- a. formally agreed to help respond in an accident;
- b. received adequate standardized training and have established a protocol for radioactive contamination treatment;
- c. have vehicles appropriate for the transport of contaminated victims from the accident site to the hospital;
- d. obtained and maintain properly functioning decontamination equipment; and
- e. made available contained and isolated treatment areas adequate to prevent the spread of contaminants into the environment.

Additionally, each hospital should be notified of impending shipments so they may have adequate personnel on call at the time the shipment is expected to pass through their area. DOE should periodically re-certify the medical readiness of each area along the transportation route. It is not sufficient for DOE to simply provide technical and financial assistance to corridor states to the extent funding will allow.

**Terrorism-** RFCAB recommends that DOE develop and implement an anti-terrorism plan for these radioactive waste shipments and should establish a terrorist response plan, prior to beginning waste shipments.

**Accidents -** RFCAB recommends that DOE make available for public review all information on past waste shipment accidents or mishaps. Protocols also should be developed for publicly reporting timely and sufficient information for all accidents that might occur in the future

**TRUPACT-II Testing-** RFCAB recommends that DOE attempt to test the TRUPACT-II shipping container in full-scale tests for stresses somewhat beyond maximum credible accident scenarios in order to understand how much beyond the minimum requirements the container can last. This is especially important for the fire tests. A realistic "maximum credible accident" crush test should also be devised and implemented.

DOE should develop and implement an inspection and maintenance plan that will determine how long and for how many miles a TRUPACT-II container will maintain its structural integrity. Containers should be retired early enough that the risk of a used container failing the minimum requirements is low.

**Escort of Shipments -** RFCAB recommends that DOE reconsider escorting waste shipments. It seems reasonable to us to assume that when there is a waste shipment accident, the safety of the community and the environment might be enhanced by having at the scene of the accident an escort crew of one or two persons trained in emergency procedures and supplied with appropriate safety and first response equipment.

In DOE's Response to RFCAB of June 4, 1997, DOE claims that "escorts increase the cost to taxpayers with no additional safety." RFCAB requests that this unsupported statement be clarified and substantiated. DOE also seems to be confusing the ideas of escorts and caravans. RFCAB sees these as two separate ideas and issues that can be addressed separately.

**Caravan of Shipments -** Truck shipments should be made in small caravans (e.g., two to four trucks) for increased safety and decreased costs associated with escorting trucks. Rail shipments should be made in multiple-car shipments for the same reasons.

**Rail Transportation -** DOE should continue evaluating the feasibility and safety estimates of this option.

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The Rocky Flats Citizens Advisory Board is a community advisory group that reviews and provides recommendations on cleanup plans for Rocky Flats, a former nuclear weapons plant outside of Denver, Colorado.

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